

***Remarks***

Claims 52, 55, 67, 70-73, 79, 90, 93, 105, 108-111, 117, 129, 132, 144, 147-150, and 156 have been canceled. New claims 167-209 have been added. The claims have been amended to make some of the specific epitopes recited in claims 38, 84 and 123 the subject of new independent claims 167, 185 and 196 and to add corresponding dependent claims. Thus, support for the new claims can be found, *inter alia*, in the previously filed claims and in the specification at paragraphs 0073-0079, 0086-0087, 0089-0094, 183-0185 and in Tables 1-6. Accordingly, no new matter is believed to be added by these amendments.

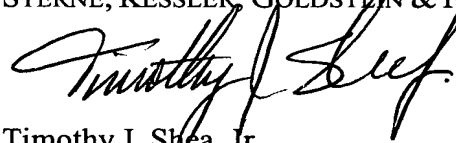
Prompt and favorable consideration of this Preliminary Amendment is respectfully requested.

***Conclusion***

Applicants believe that the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Timothy J. Shea, Jr.  
Attorney for Applicants  
Registration No. 41,306

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1100 New York Avenue, N.W.  
8<sup>th</sup> Floor  
Washington, D.C. 20005-3934  
(202) 371-2600

**Version with markings to show changes made**

Claims 52, 55, 67, 70-73, 79, 90, 93, 105, 108-111, 117, 129, 132, 144, 147-150, and 156 have been canceled.

New claims 166-209 have been added.

The following claims have been amended.

38 (Once amended). An isolated polypeptide not more than 100 amino acids in length comprising at least one C35 peptide epitope selected from the group consisting of: amino acids S-9 to V-17 of SEQ ID NO:2, amino acids V-10 to V-17 of SEQ ID NO:2, amino acids E-16 to V-23 of SEQ ID NO:2, amino acids E-16 to R-24 of SEQ ID NO:2, amino acids E-16 to I-25 of SEQ ID NO:2, [amino acids S-21 to Y-29 of SEQ ID NO:2,] amino acids S-21 to F-35 of SEQ ID NO:2, amino acids G-22 to C-30 of SEQ ID NO:2, [amino acids I-25 to C-30 of SEQ ID NO:2,] amino acids C-30 to T-38 of SEQ ID NO:2, amino acids E-31 to Y-39 of SEQ ID NO:2, amino acids E-36 to A-43 of SEQ ID NO:2, amino acids A-37 to A-45 of SEQ ID NO:2, amino acids A-37 to V-46 of SEQ ID NO:2, [amino acids T-38 to V-46 of SEQ ID NO:2,] amino acids Y-39 to V-46 of SEQ ID NO:2, amino acids S-44 to I-53 of SEQ ID NO:2, amino acids A-45 to I-53; of SEQ ID NO:2, amino acids G-52 to L-59 of SEQ ID NO:2, amino acids E-54 to T-62 of SEQ ID NO:2, amino acids S-57 to F-75 of SEQ ID NO:2, amino acids R-58 to I-67 of SEQ ID NO:2, amino acids G-61 to I-69 of SEQ ID NO:2, amino acids G-63 to F-83 of SEQ ID

NO:2, [amino acids F-65 to L-73 of SEQ ID NO:2,] amino acids E-66 to L-73 of SEQ ID NO:2, amino acids E-66 to V-74 of SEQ ID NO:2, [amino acids I-67 to F-75 of SEQ ID NO:2, amino acids K-77 to Y-85 of SEQ ID NO:2, amino acids Q-72 to E-86 of SEQ ID NO:2, amino acids G-81 to L-89 of SEQ ID NO:2,] amino acids F-83 to E-103 of SEQ ID NO:2, amino acids D-88 to A-96 of SEQ ID NO:2, amino acids L-89 to A-96 of SEQ ID NO:2, amino acids A-92 to T-101 of SEQ ID NO:2, amino acids R-95 to L-102 of SEQ ID NO:2, amino acids A-96 to K-104 of SEQ ID NO:2, [amino acids K-104 to C-112 of SEQ ID NO:2,] amino acids K-104 to V-113 of SEQ ID NO:2, amino acids I-105 to V-113 of SEQ ID NO:2, amino acids I-105 to I-114 of SEQ ID NO:2.

84 (Once amended). A fusion protein comprising at least one C35 peptide epitope, wherein said at least one C35 peptide epitope is a peptide epitope selected from the group consisting of: amino acids S-9 to V-17 of SEQ ID NO:2, amino acids V-10 to V-17 of SEQ ID NO:2, amino acids E-16 to V-23 of SEQ ID NO:2, amino acids E-16 to R-24 of SEQ ID NO:2, amino acids E-16 to I-25 of SEQ ID NO:2, [amino acids S-21 to Y-29 of SEQ ID NO:2,] amino acids S-21 to F-35 of SEQ ID NO:2, amino acids G-22 to C-30 of SEQ ID NO:2, [amino acids I-25 to C-30 of SEQ ID NO:2,] amino acids C-30 to T-38 of SEQ ID NO:2, amino acids E-31 to Y-39 of SEQ ID NO:2, amino acids E-36 to A-43 of SEQ ID NO:2, amino acids A-37 to A-45 of SEQ ID NO:2, amino acids A-37 to V-46 of SEQ ID NO:2, [amino acids T-38 to V-46 of SEQ ID NO:2,] amino acids Y-39 to V-46 of SEQ ID NO:2, amino acids S-44 to I-53 of SEQ ID NO:2, amino acids A-45 to I-53; of SEQ ID NO:2, amino acids G-52 to L-59 of SEQ ID NO:2, amino acids E-54 to T-62 of SEQ ID NO:2, amino acids S-57 to F-75 of SEQ ID NO:2, amino acids R-

58 to I-67 of SEQ ID NO:2, amino acids G-61 to I-69 of SEQ ID NO:2, amino acids G-63 to F-83 of SEQ ID NO:2, [amino acids F-65 to L-73 of SEQ ID NO:2,] amino acids E-66 to L-73 of SEQ ID NO:2, amino acids E-66 to V-74 of SEQ ID NO:2, [amino acids I-67 to F-75 of SEQ ID NO:2, amino acids K-77 to Y-85 of SEQ ID NO:2, amino acids Q-72 to E-86 of SEQ ID NO:2, amino acids G-81 to L-89 of SEQ ID NO:2,] amino acids F-83 to E-103 of SEQ ID NO:2, amino acids D-88 to A-96 of SEQ ID NO:2, amino acids L-89 to A-96 of SEQ ID NO:2, amino acids A-92 to T-101 of SEQ ID NO:2, amino acids R-95 to L-102 of SEQ ID NO:2, amino acids A-96 to K-104 of SEQ ID NO:2, [amino acids K-104 to C-112 of SEQ ID NO:2,] amino acids K-104 to V-113 of SEQ ID NO:2, amino acids I-105 to V-113 of SEQ ID NO:2, amino acids I-105 to I-114 of SEQ ID NO:2.

123 (Once amended). An isolated C35 peptide epitope selected from the group consisting of: amino acids S-9 to V-17 of SEQ ID NO:2, amino acids V-10 to V-17 of SEQ ID NO:2, amino acids E-16 to V-23 of SEQ ID NO:2, amino acids E-16 to R-24 of SEQ ID NO:2, amino acids E-16 to I-25 of SEQ ID NO:2, [amino acids S-21 to Y-29 of SEQ ID NO:2,] amino acids S-21 to F-35 of SEQ ID NO:2, amino acids G-22 to C-30 of SEQ ID NO:2, [amino acids I-25 to C-30 of SEQ ID NO:2,] amino acids C-30 to T-38 of SEQ ID NO:2, amino acids E-31 to Y-39 of SEQ ID NO:2, amino acids E-36 to A-43 of SEQ ID NO:2, amino acids A-37 to A-45 of SEQ ID NO:2, amino acids A-37 to V-46 of SEQ ID NO:2, [amino acids T-38 to V-46 of SEQ ID NO:2,] amino acids Y-39 to V-46 of SEQ ID NO:2, amino acids S-44 to I-53 of SEQ ID NO:2, amino acids A-45 to I-53; of SEQ ID NO:2, amino acids G-52 to L-59 of SEQ ID NO:2, amino acids E-54 to T-62 of

SEQ ID NO:2, amino acids S-57 to F-75 of SEQ ID NO:2, amino acids R-58 to I-67 of  
SEQ ID NO:2, amino acids G-61 to I-69 of SEQ ID NO:2, amino acids G-63 to F-83 of  
SEQ ID NO:2, [amino acids F-65 to L-73 of SEQ ID NO:2,] amino acids E-66 to L-73 of  
SEQ ID NO:2, amino acids E-66 to V-74 of SEQ ID NO:2, [amino acids I-67 to F-75 of  
SEQ ID NO:2, amino acids K-77 to Y-85 of SEQ ID NO:2, amino acids Q-72 to E-86 of  
SEQ ID NO:2, amino acids G-81 to L-89 of SEQ ID NO:2,] amino acids F-83 to E-103  
of SEQ ID NO:2, amino acids D-88 to A-96 of SEQ ID NO:2, amino acids L-89 to A-96  
of SEQ ID NO:2, amino acids A-92 to T-101 of SEQ ID NO:2, amino acids R-95 to L-  
102 of SEQ ID NO:2, amino acids A-96 to K-104 of SEQ ID NO:2, [amino acids K-104  
to C-112 of SEQ ID NO:2,] amino acids K-104 to V-113 of SEQ ID NO:2, amino acids  
I-105 to V-113 of SEQ ID NO:2, amino acids I-105 to I-114 of SEQ ID NO:2.